Testimony

SIERRA CLUB
FOUNDED 1892

HB 4539

House Energy & Technology Committee

June 27, 2007

Lydia Fischer, Legislative Chair

Good morning, my name is Lydia Fischer, I live in Ann Arbor and I'm a volunteer for the Michigan Chapter of the Sierra Club. Thank you for the opportunity to present our views on the need for strong renewable energy standards in the state. Sierra Club is in support of HB 4539, which would require that by the end of 2020, not less than 20% of the total amount of electricity sold by a provider would come from renewable energy systems.

We need these standards because, in terms of energy, we are on the wrong course, and the impact on Michigan's air and water and consequently our public health keeps getting worse. Almost all of Michigan's energy comes from dirty, non-renewable sources such as coal (63%), nuclear (23%), and natural gas (10%). Only 3 percent comes from renewables. Coal is especially pernicious, and a major source of mercury, acid rain, smog and sulfur dioxide. As a result, over 7.5 million residents live in places where it's unsafe to breathe, and almost 25,000 suffer asthma attacks due to respiratory problems made worse by air pollution. Toxic mercury pollution in our Great Lakes contaminates our fish, and up the food chain, harms our children.

The sources of this pollution are **imported**. Michigan exports $20 billion out of state for all the coal, and most of the natural gas and the oil it uses. These billions of dollars translate into scores of thousands of jobs, but those jobs are not filled by Michigan workers. It might have been easier to overlook these economic consequences 10 or 20 years ago. Not so under our current economic and employment conditions. These days, the number and quality of jobs resulting from different energy strategies must receive the closest consideration.

Requiring our power to be produced by an increasing proportion of **renewables** will result in substantial gains for public health and Michigan's environment. Implementation of RES schedules as proposed in HB 4539 would reduce annual power plant pollution substantially, and prevent accumulation of global warming pollutants and mercury.

The **economics** of going "renewable" are persuasive. Our state has no coal or uranium reserves and Michigan's oil and gas production is declining. On the other hand, the state is a natural producer of a key renewable, wind. We must take advantage of that magnificent resource. Michigan's manufacturing capacity, including manufacturing employment, could be retooled and retrained to manufacture wind turbines and other such equipment. Credible estimates indicate that by becoming suppliers to wind energy generation not only here in Michigan but on a national scale we could create as many

as 50,000 new jobs in the state from wind turbine production alone. Indeed, Michigan ranks 4th highest nationally in manufacturing job generation **potential** from renewables.

Other states have seen the wisdom of committing to strong renewable standards. California, Illinois, New York, Wisconsin and Pennsylvania, all have enacted mandatory renewable goals for electricity production and are satisfying more and more of their energy needs with wind. All of them have less wind-generating potential than Michigan, which ranks as the 14th windiest state in the country. Eighteen other states have committed to a strong renewable standard, for a total of 23.

The rewards for these forward-looking states are growing. For example, Pennsylvania's commitment to a strong RES has lured a Spanish Wind Turbine Company (Gamesa) to set up its US headquarters and operations in the state, using old steel plant capacity to build blades and other components. In Texas, the first 1,000 MW of wind has provided $11.6 million in tax revenues to schools, and over 2,500 direct wind-related jobs.

Within our own Great Lakes Basin, all our neighbors except Indiana and Ohio have enacted RES commitments, and are enjoying cleaner air and job creation as a result. We are number 2 (behind MN) in on-shore wind energy potential in the region. But, with no RES goals, there are only 3 MW of installed wind power in the state, while MN has already installed 812 wind power MW. This translates into Michigan producing enough wind power for 900 average homes, while MN is producing enough for slightly less than 245,000 average homes.

Although wind power receives most attention, renewables also include solar and biomass. An RES would further promote the already vigorous solar power industry in the state. With respect to biomass, the Sierra Club strongly supports excluding municipal waste, tires, recyclable waste paper and other unsuitable waste from the definition of renewable sources, as specified in HB 4539. We do support inclusion of methane gas from landfills and methane digesters among qualified renewable sources.

Finally, I want to emphasize that Sierra Club opposes building nuclear plants. Nuclear power is not safe, affordable or clean with currently available technology and practice. Nuclear waste transportation, storage and disposal problems remain unresolved.

Sierra Club strongly opposes new coal power plants, including the so-called "clean coal" variety. The technologies that have attracted most attention in recent years include Carbon Capture and Sequestration (CCS) and Integrated Gasification Combined Cycle (IGCC). Unfortunately, the promises of these and other future technological innovations that would allow us to use coal with less pollution are not available today and still largely unproven. A point worth keeping in mind is that, in addition to the negative environmental, public health and economic development aspects of coal, Michiganders are also at risk from reliance on coal-based power as ratepayers. Prices of fossil fuels are expected to rise over time; future taxes and restrictions on greenhouse gas emissions will make fossil fuels even more costly.

Our state should commit to the feasible goal of meeting all future growth in electricity demand through smart investments in energy efficiency and domestic renewable resources. The keys to success are innovation and productivity; two of Michigan's strong suits, and the result will be a better energy future.